



NATURAL RESOURCES CONSERVATION SERVICE  
(NRCS)

OH-ENG-233a  
03/00

ANNUAL LIVESTOCK DEATH LOSS CALCULATIONS (General Livestock)

Sheet \_\_\_\_ of \_\_\_\_

Landowner:		County:	
Designer:	Date:	Checked:	Date:

Cattle, Horses, Sheep, Goats, Other (list) \_\_\_\_\_ Poultry (use 233P), Swine (use 233S)

*Complete one form for each livestock species. When the composting facility will include multiple livestock species, calculate daily losses by animal growth stage for each species, then sum the species worksheets to determine daily farm loss (see bottom of this form).*

TOTAL POUNDS DEATH LOSS PER YEAR (use "average weight" to calculate death loss)

BIRTH STAGE:

( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) = \_\_\_\_\_  
Number of Births                      Average Weight                      (% loss/100)                      Lbs. of annual mortality

WEANLING STAGE:

( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) = \_\_\_\_\_  
Number of Animals                      Average Weight                      (% loss/100)                      Lbs. of annual mortality

YEARLING STAGE:

( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) = \_\_\_\_\_  
Number of Animals                      Average Weight                      (% loss/100)                      Lbs. of annual mortality

MATURE STAGE:

( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) X ( \_\_\_\_\_ ) = \_\_\_\_\_  
Number of Animals                      Average Weight                      (% loss/100)                      Lbs. of annual mortality

TOTAL SPECIES ANNUAL MORTALITY / YEAR (AM) = \_\_\_\_\_ lb

AVG DAILY LOSS (ADL) = ANNUAL MORTALITY / 365 = \_\_\_\_\_ / 365 = \_\_\_\_\_ lb/ day **1/**  
AM

(**1/** - see next page)

Note:

For animals weighing less than 500 to 600 pounds, a bin composting system should initially be evaluated. For larger animals a windrow or compost pile for an individual mature animal will likely be the most practical.

**1/** For poultry and swine, normal daily death loss can be assumed as a constant throughout the year. However in some livestock operations, high seasonal death rates are the norm (during calving and lambing), where the majority of annual death loss occurs during a short period of time. The other circumstance is where specific growth stages are moved off the farm at less than a year old (lambs sold at 120 days). In these instances, the average daily death loss calculation is modified as follows:

DAILY DEATH LOSS (ADL) =  $[(AM \times P) / t]$  = \_\_\_\_\_ lb/day

AM = total annual mortality, for species or growth stage (lb)

t = duration of seasonal high loss period, or duration, less than a year, species are on the farm (days)

P= percentage of total annual loss that occurs during seasonal peaks (decimal)

#### OPTIONAL ADL CALCULATION METHOD

(select largest ADL from either method)

BIRTH STAGE:

(ADL) =  $[(\frac{\quad}{AM} \times \frac{\quad}{P}) / \frac{\quad}{t}]$  = \_\_\_\_\_ lb/day

WEANLING STAGE:

(ADL) =  $[(\frac{\quad}{AM} \times \frac{\quad}{P}) / \frac{\quad}{t}]$  = \_\_\_\_\_ lb/day

YEARLING STAGE:

(ADL) =  $[(\frac{\quad}{AM} \times \frac{\quad}{P}) / \frac{\quad}{t}]$  = \_\_\_\_\_ lb/day

MATURE STAGE:

(ADL) =  $[(\frac{\quad}{AM} \times \frac{\quad}{P}) / \frac{\quad}{t}]$  = \_\_\_\_\_ lb/day

TOTAL ADL / SPECIES = \_\_\_\_\_ lb/day

---

Total Farm ADL (complete for last form used)

Species	Daily Mortality (ADL) from forms 233a, 233p or 233s
Cattle/ Dairy	lb/day
Goats	lb/day
Poultry	lb/day
Sheep	lb/day
Swine	lb/day
Horses	lb/day
Other (list)	lb/day
Sum (total farm)	lb/day

Go to forms 234a (windrow) or 235a (bin) to size the composting facility